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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/812,140	03/19/2001	Herbert J. Neuhaus	5740.02	7640

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EXAMINER

WILLIAMS, ALEXANDER O

ART UNIT PAPER NUMBER

2826

DATE MAILED: 07/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/812,140

Applicant(s)

NEUHAUS ET AL.

Examiner

Alexander O Williams

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26,28-55 and 93-110 is/are pending in the application.
- 4a) Of the above claim(s) 1-20, 29-47 and 55 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-26,28,48-54 and 93-110 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 22.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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Serial Number: 09/812140 Attorney's Docket #: 5740.02
Filing Date: 3/19/01;

Applicant: Neuhaus et al.

Examiner: Alexander Williams

Applicant's RCE in Paper No. 23, filed 4/15/03 is acknowledged.

Applicant's Amendment in Paper No. 20, filed 3/12/03 is acknowledged.

This application contains claims 1-20, 29-47 and 55 drawn to an invention non-elected with traverse in Paper No. 10. A complete response to the final rejection must include cancellation of non-elected claims or other appropriate action (see 37 CFR § 1.144 & MPEP § 821.01).

Claims 27 and 56-92 have been canceled.

The disclosure is objected to because of the following informalities: the application related applications should be updated.

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

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Claims 21 and 48 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The at least one electrically conductive hard particle is affixed, without an adhesive, in direct contact with a conductive surface of its associated electrical contact site, in not described in the specification or shown in the drawing. The drawing show an adhesive 124,224,324, in figures 1 to 3 uses for bonding the substrate to the chip.

Claims 21 to 25 and 48 to 50 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 21 and 48, it is unclear and confusing to what is meant by "the at least one electrically conductive hard particle is affixed, without an adhesive, in direct contact with a conductive surface of its associated electrical contact site." How is this possible when the drawing clearly show 124,224,324, in figures 1 to 3 using adhesive to bond the substrate to the chip?

Any of claims 21 to 25 and 48 to 50 not specifically addressed above are rejected as being dependent on one or more of the claims which have been specifically objected to above.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 21, 23 to 25 and 48 to 50 are rejected under 35 U.S.C. § 102(b) as being anticipated by Lake (U.S. Patent # 5,605,547).

For example, in claim 21 and similar claim 48, Lake (figures 1 to 6) specifically **figure 3** show an electrical component assembly comprising: a) a substrate **10** having a plurality of electrical contact sites **13** on a surface thereof; and b) a plurality of electrically conductive hard particles **18** positioned on the substrate, such that each of the electrical contact sites has at least one electrically conductive hard particle associated therewith, wherein the at least one electrically conductive hard particle is affixed in direct contact with a conductive surface of its associated electrical contact.

Claims 26, 51 and 102 to 108 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lake (U.S. Patent # 5,605,547).

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Initially, it is noted that the 35 U.S.C. § 103 rejection based on a thin layer of metal plated and a electrical contact deals with an issue (i.e., the integration of multiple pieces into one piece or conversely, using multiple pieces in replacing a single piece) that has been previously decided by the courts.

In Howard v. Detroit Stove Works 150 U.S. 164 (1893), the Court held, "it involves no invention to cast in one piece an article which has formerly been cast in two pieces and put together...."

In In re Larson 144 USPQ 347 (CCPA 1965), the term "integral" did not define over a multi-piece structure secured as a single unit. More importantly, the court went further and stated, "we are inclined to agree with the solicitor that the use of a one-piece construction instead of the [multi-piece] structure disclosed in Tuttle et al. would be merely a matter of obvious engineering choice" (bracketed material added). The court cited In re Fridolph for support.

In re Fridolph 135 USPQ 319 (CCPA 1962) deals with submitted affidavits relating to this issue. The underlying issue in In re Fridolph was related to the end result of making a multi-piece structure into a one-piece structure. Generally, favorable patentable weight was accorded if the one-piece structure yielded results not expected from the modification of the two-piece structure into a single piece structure.

For example, in claim 21 and similar claim 48, Lake (figures 1 to 6) specifically **figure 3** show an electrical component assembly comprising: a) a substrate **10** having a plurality of electrical contact sites **13** on a surface thereof; and b) a plurality of electrically conductive hard particles **18** positioned on the substrate; and a thin layer **13** of metal plated on each of the electrical contact sites, wherein the thin layer of metal affixes the at least one electrically conductive hard particle to a conductive surface of its associated electrical contact site, each of the electrical contact sites has at least one electrically conductive hard particle associated therewith, and the at least one

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electrically conductive hard particle is affixed in direct contact with a conductive surface of its associated electrical contact .

Therefore, it would have been obvious to one of ordinary skill in the art to use the thin layer of metal plated and a electrical contact as "merely a matter of obvious engineering choice" as set forth in the above case law.

Claims 53, 54, 109 and 110 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lake (U.S. Patent # 5,605,547 in view of Herbst (U.S. Patent # 5,913,110).

Lake show the features of the claimed invention as detailed above, but fails to explicitly show wherein the printed circuit board substrate comprises a smart card chip module or a smart label.

Herbst is cited for showing a method for producing a plastic material composite component. Specifically, Herbst (figures 1 to 15) specifically figure 4 discloses wherein the printed circuit board substrate comprises a smart card chip module or a smart label (see column 1, lines 33-65) for the purpose of providing a carrier element having protection for the chip.

Therefore, it would be obvious to one of ordinary skill in the art to use Herbst's smart card chip module or a smart label to modify Lake's substrate for the purpose of providing a carrier element having protection for the chip.

Claims 22, 28 and 93 to 101 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response

Applicant's arguments filed 3/17/03 have been fully considered, but are moot in view of the modified and new grounds of rejections detailed above.

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Field of Search	Date
U.S. Class and subclass: 257/778,779,784,786,787,738,737,734,700,701,758	1/25/02 7/29/02 1/10/03 6/30/03
Other Documentation: foreign patents and literature in 257/778,779,784,786,787,738,737,734,700,701,758	1/25/02 7/29/02 1/10/03 6/30/03
Electronic data base(s): U.S. Patents EAST	1/25/02 7/29/02 1/10/03 6/30/03

Papers related to this application may be submitted to Technology Center 2800 by facsimile transmission. Papers should be faxed to Technology Center 2800 via the Technology Center 2800 Fax center located in Crystal Plaza 4-5B15. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Technology Center 2800 Fax Center number is (703) 308-7722 or 24. Only Papers related to Technology Center 2800 APPLICATIONS SHOULD BE FAXED to the GROUP 2800 FAX CENTER.

Any inquiry concerning this communication or any earlier communication from the examiner should be directed to ***Examiner Alexander Williams*** whose telephone number is **(703) 308-4863**.

Any inquiry of a general nature or relating to the status of this application should be directed to the ***Technology Center 2800 receptionist*** whose telephone number is **(703) 308-0956**.

6/30/03



Primary Examiner
Alexander O. Williams